



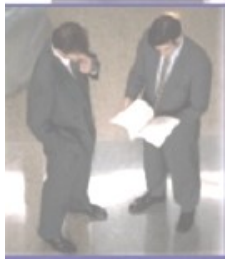
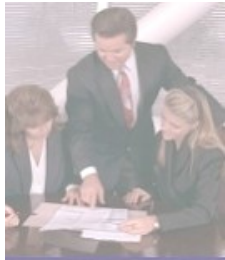
Our experience with International Customers

How to achieve your mission
goals



Our experience with International Customers have pointed to certain unavoidable truths

The control of avoidable loss remains one of the few areas with major cost-reduction potential.



Control of Avoidable Loss





Goals of any Loss Control Management Program



IDENTIFY all loss exposures

EVALUATE the risk

DEVELOP a plan

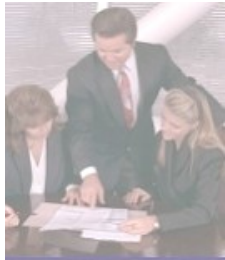
IMPLEMENT the plan

MONITOR the system



INCIDENT RELATIONSHIPS

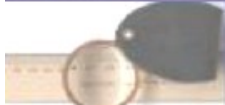
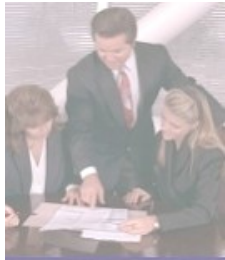
Bird's 1969
US Ratio Study





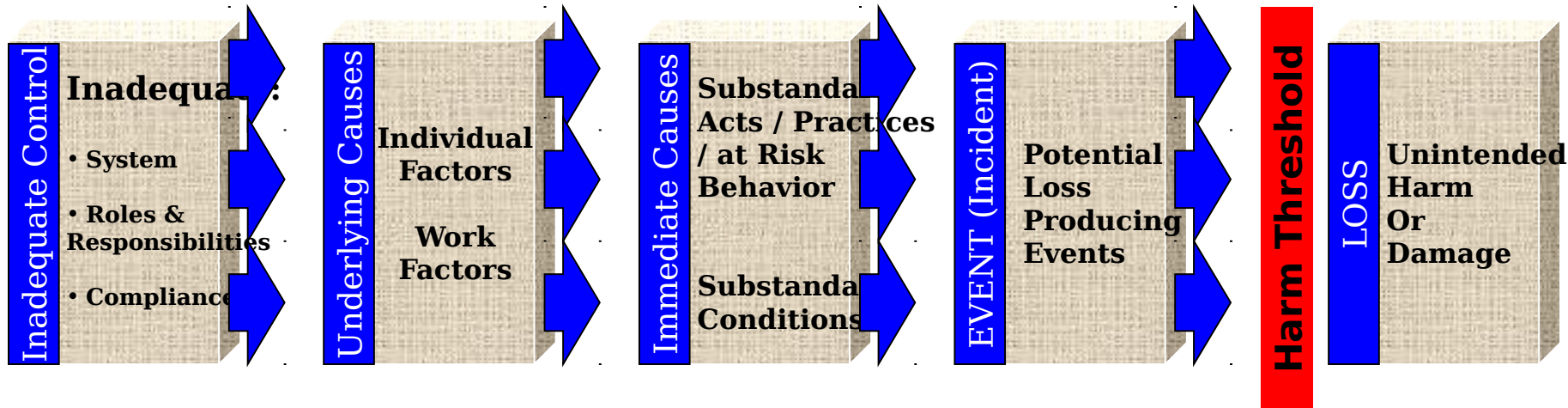
Our experience with International Customers have pointed to certain unavoidable truths

The majority of losses result not from employees' unsafe acts, but from deficiencies in the management system.



Bird's Incident Causation Model`

Incident Causation Model

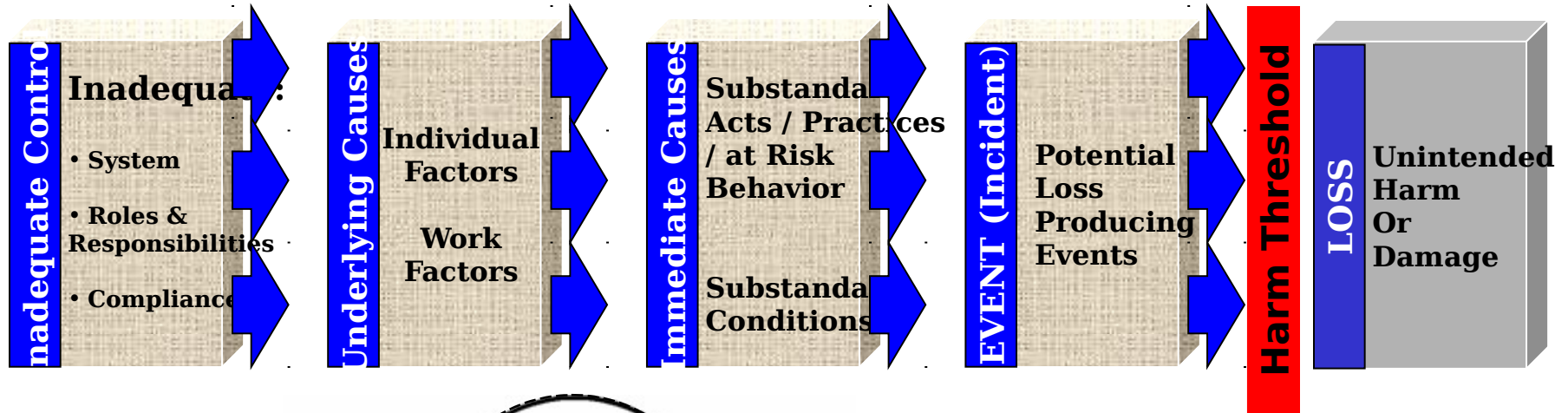


INCIDENT CAUSATION MODEL



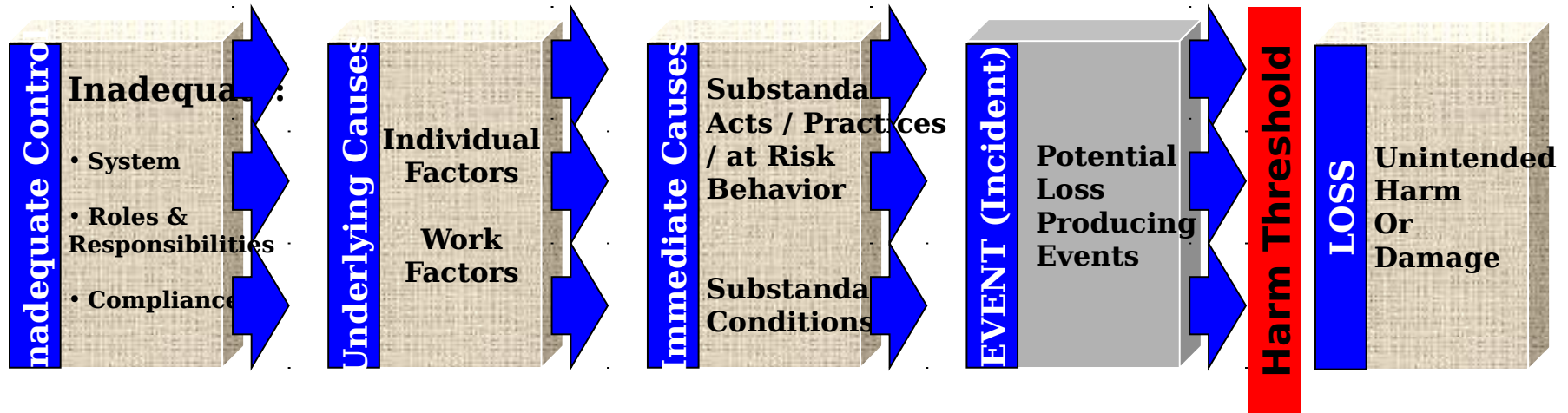
Problem Solving Model

Loss



- People
- Property
- Processes
- Environment

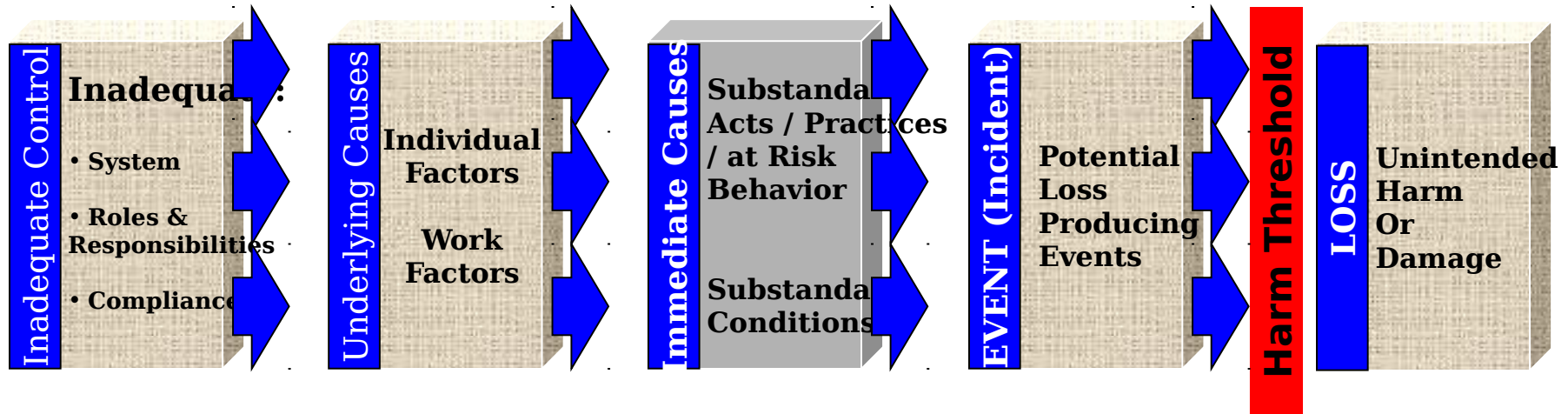
Event (Incident)



Common types of contacts

- ◆ Struck against
- ◆ Struck by
- ◆ Fall from a different level
- ◆ Fall from same level
- ◆ Caught by
- ◆ Caught in between
- ◆ contact with
- ◆ Overexertion

Immediate Causes



- Substandard Acts/Practices
- Substandard Conditions



IMMEDIATE CAUSES

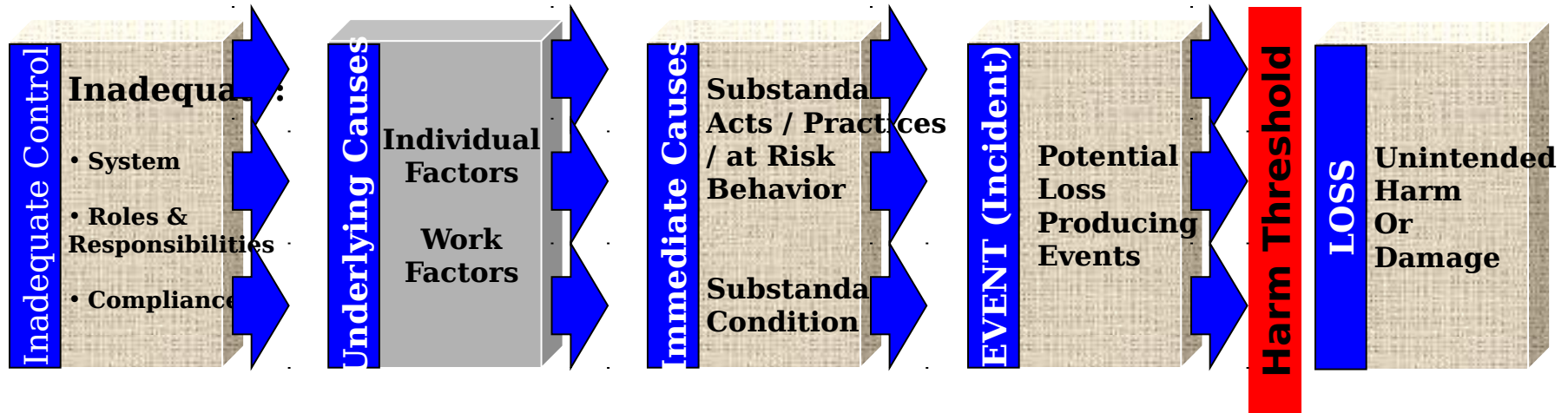
Substandard Acts or Practices

- Failure to warn
- Failure to obey rules
- Failure to follow procedures
- Removing safety devices
- Improper lifting
- Failure to use PPE
- Servicing operating equipment
- Horseplay

Substandard Conditions

- Inadequate guards/barriers
- Inadequate PPE
- Defective tools/equipment
- Congestion
- Inadequate warning system
- Disorder
- Excessive exposures
- Inadequate ventilation
- Inadequate illumination

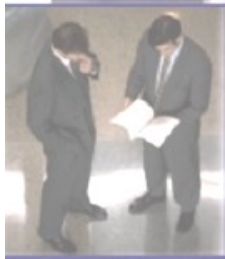
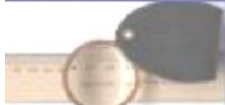
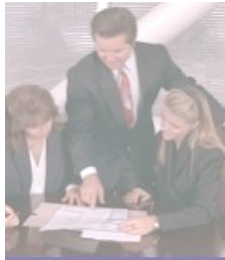
Underlying Causes



- Personal Factors
- Job/System Factors



Underlying Causes

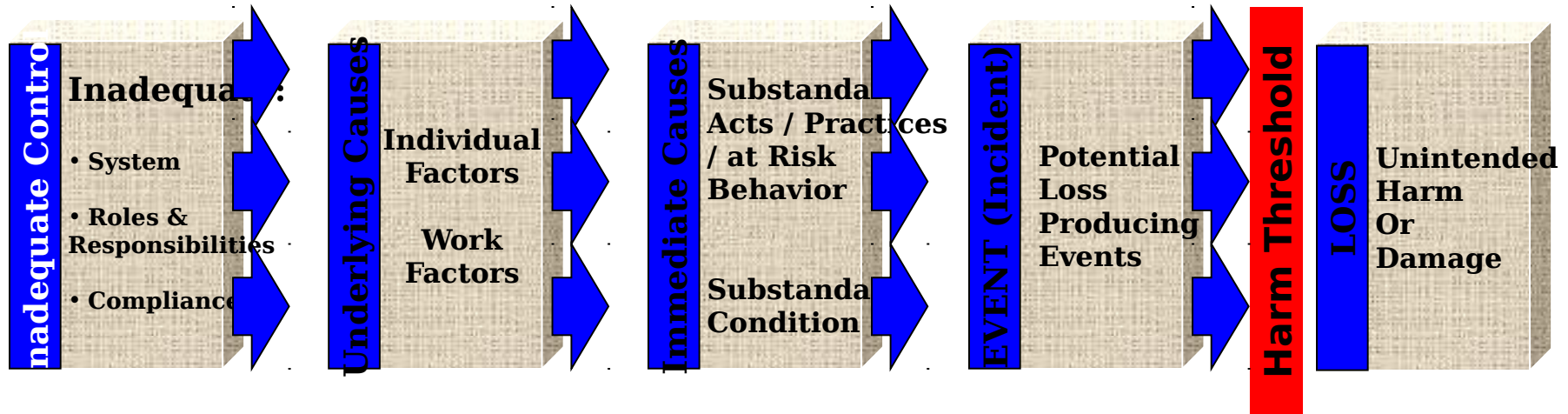


Personal Factors Job Factors

- Inadequate capability
- Stress
- Lack of knowledge
- Lack of skill
- Improper motivation

- Inadequate leadership
- Inadequate engineering
- Inadequate purchasing
- Inadequate maintenance
- Inadequate tools & equipment
- Inadequate work standards
- Wear and tear
- Abuse and Misuse

Inadequate Control

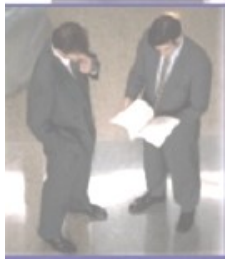
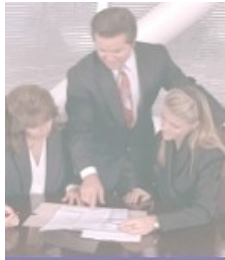


- Inadequate system
- Inadequate system standards
- Inadequate compliance with standards



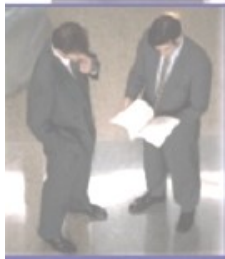
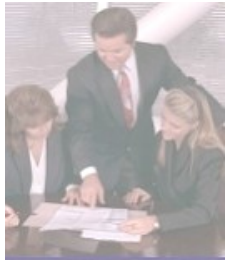
Our experience with International Customers have pointed to certain unavoidable truths

The characteristics of the management system which would allow major loss to occur can be identified by a suitable auditing system.



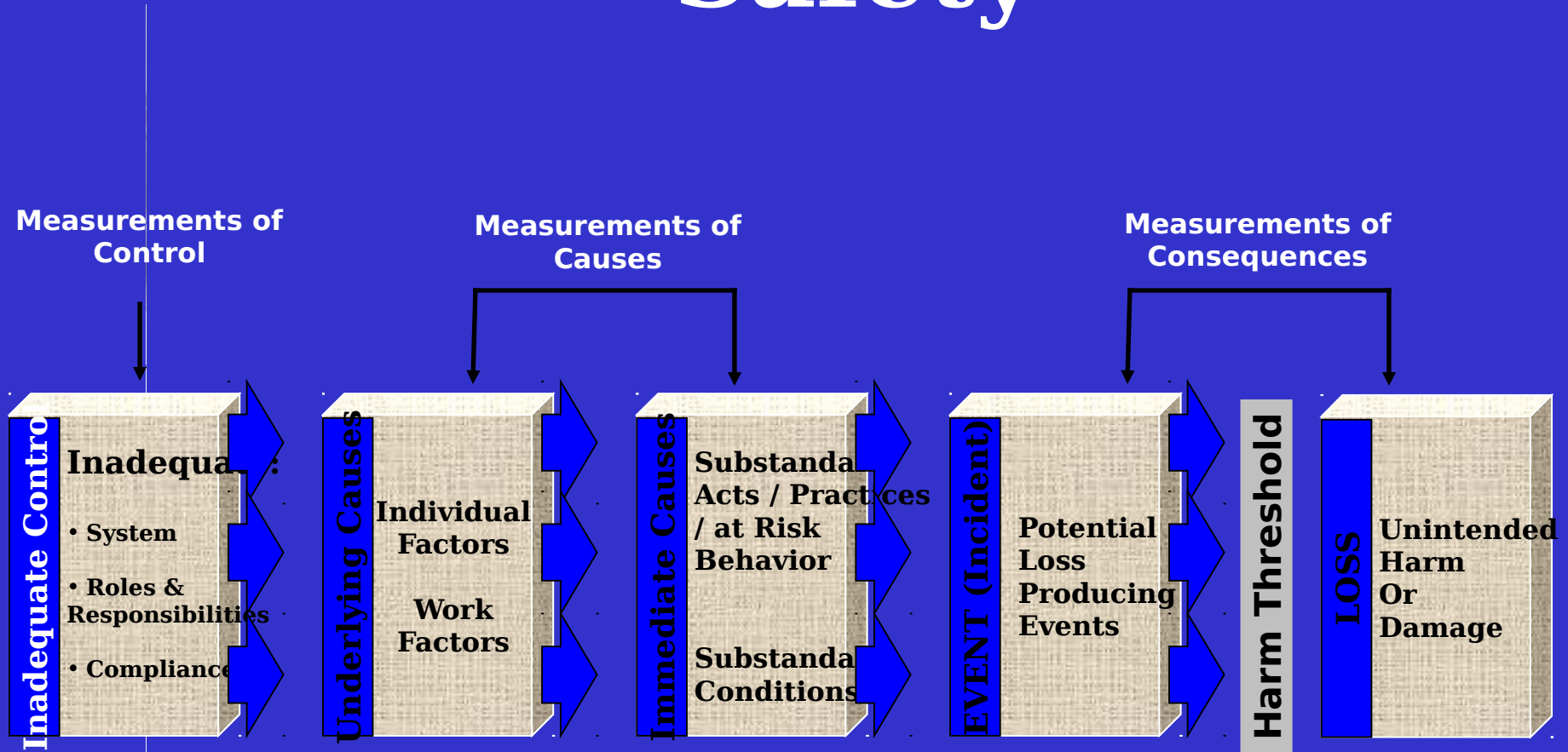


Measurements of Safety



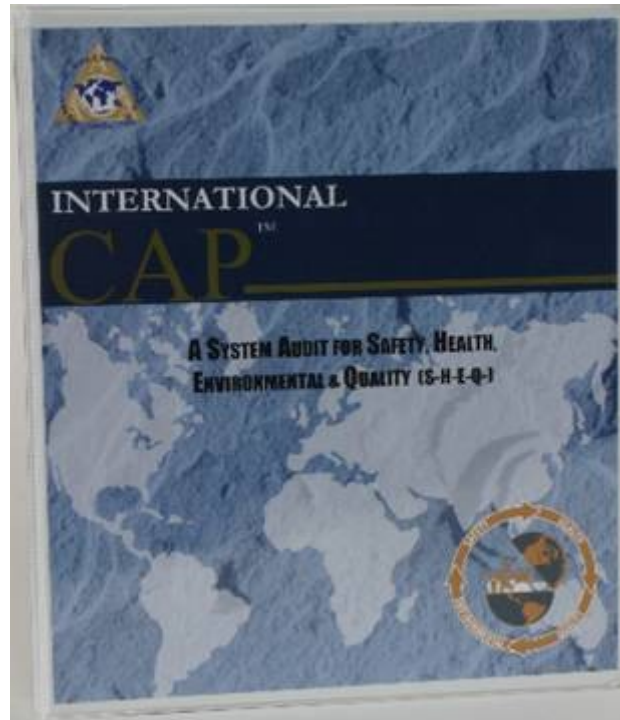
Control	Causes	Consequences
<ul style="list-style-type: none"> ◆ Planned Inspections ◆ Job procedures and practices ◆ Accident/incident investigation ◆ Rules, regulations and practices ◆ Protective equipment ◆ Personal communications ◆ Loss control meetings 	<ul style="list-style-type: none"> ◆ Substandard acts and conditions ◆ Remove safety devices ◆ Inadequate guards or barriers ◆ Personal and job/system factors ◆ Lack of knowledge or skill ◆ Inadequate maintenance ◆ Abuse or misuse 	<ul style="list-style-type: none"> ◆ Injury frequency rates ◆ Injury severity rates ◆ Damage severity rates ◆ Production downtime ◆ Waste per unit of production ◆ Product losses ◆ Total energy and water use rates ◆ Financial losses

Measurements of Safety





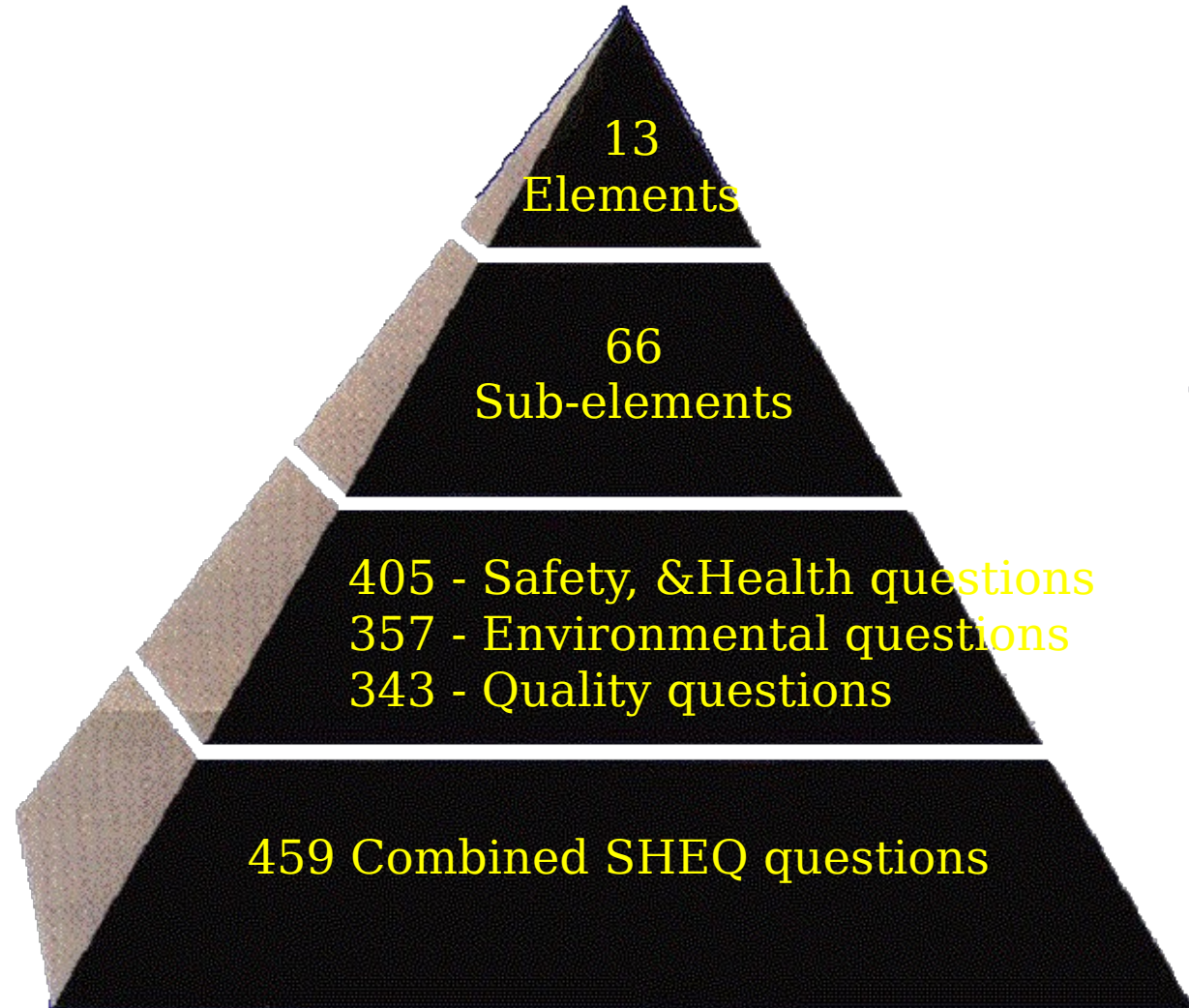
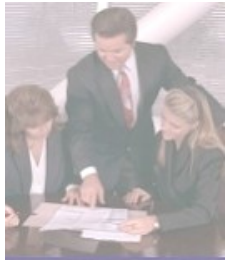
CAPTM



Common Audit Process



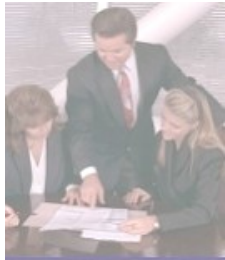
A Complete Audit System





CAPTM

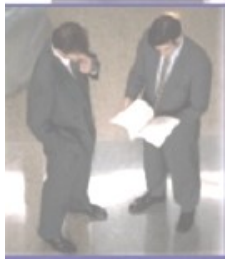
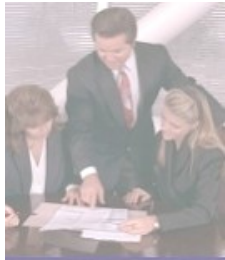
- CAPTM was developed to measure the elements and activities that are “common” in managing Safety, Health, Environment and Quality.





CAPTM

- An integrated approach
- Based on years of experience
- Currently being used by BSI
- Regular updates
- Variety of industries
- Electronic version





CAPTM

Over 1,000 sites worldwide

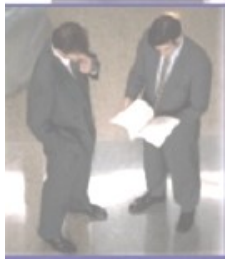
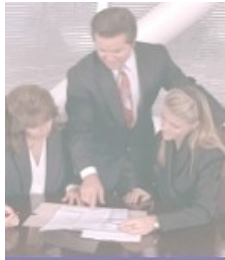
- Mining (surface and underground)
- Chemical Processing
- Transportation
- Pulp/Paper
- Process/Petrochemical
- General Manufacturing
- Food Processing
- Pharmaceutical





CAPTM

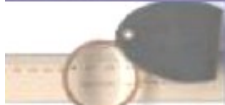
- » Safety
- » Health
- » Environment
- » Quality





CAPTM

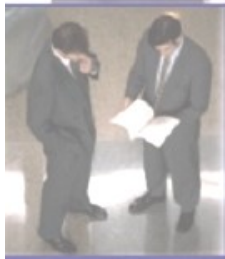
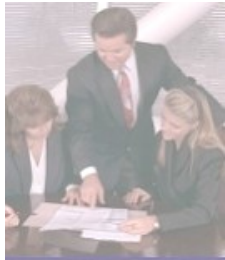
You determine
what to include (SHEQ)
as part of the scope
of your audit.





CAPTM

- A Measurement Tool
- International Standards
- International Acceptance
- A program “Blueprint”

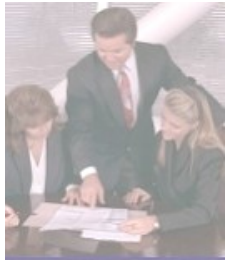




CAPTM

Includes minimum requirements
for recognition or certification:

- » OSHA's VPP
- » ISO 9000
- » ISO 14001
- » OHSAS 18000

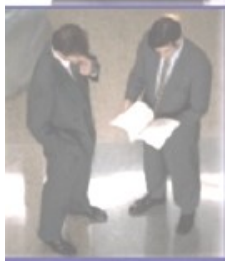
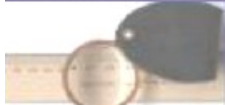




CAPTM

13 Elements, each contain:

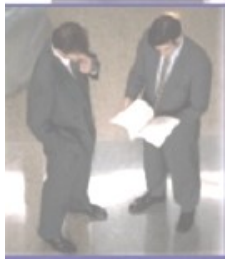
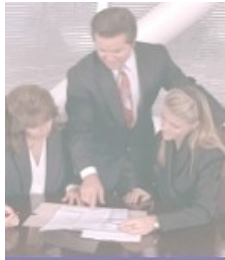
- Questions
- Identification of applicable standards
- Auditor Guidance
- Scoring
- References





CAPTM

- Each Yes answer . . .
is a measure of activities in place.
- Each No answer . . .
is a suggested activity for continuous improvement.





CAPTM

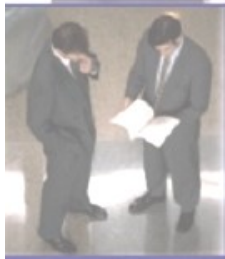
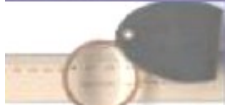
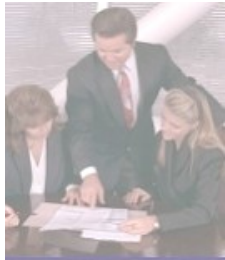
- The score is a percentage measure showing the opportunities for improvement.
- Subsequent audits measure the overall improvement during each period.





CAPTM Elements

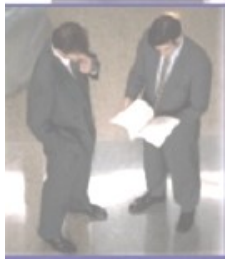
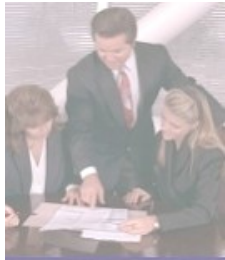
- 1. PLANNING AND LEADERSHIP**
- 2. COMPETENCY, TRAINING AND COMMUNICATION**
- 3. JOB OPERATION ANALYSIS AND CONTROLS**
- 4. CHANGE MANAGEMENT**
- 5. PURCHASING SYSTEMS**
- 6. WORK RULES AND OPERATING PERMITS**
- 7. INSPECTIONS**
- 8. OCCUPATIONAL HEALTH AND HYGIENE SYSTEMS**
- 9. PERSONAL PROTECTIVE EQUIPMENT**
- 10. INCIDENT INVESTIGATION AND ANALYSIS**
- 11. EMERGENCY PREPAREDNESS**
- 12. MEASUREMENT, MONITORING AND AUDITS**
- 13. CORRECTIVE AND PREVENTIVE ACTION SYSTEMS**





CAPTM For Your Management System

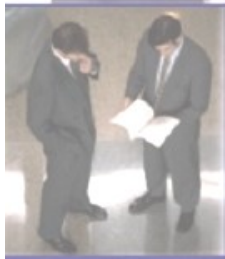
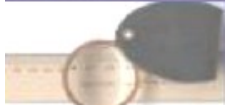
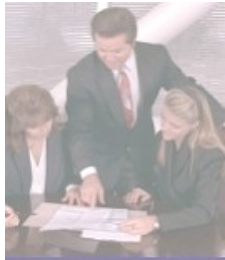
1. Identifies work needed to improve
2. Measures work being done to improve
3. Objectively quantifies work being done to prevent incidents and accidents
4. Identifies the vast majority of management system deficiencies which could lead to incidents and accidents.
5. Finally and very importantly, CAPTM assists the site in gaining compliance with external management system standards such as ISO 14001, ISO 9000, OHSAS 18000 and OSHA's VPP.





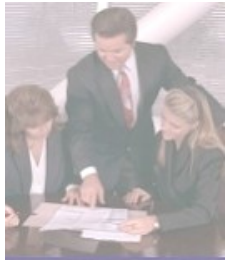
Our experience with International Customers have pointed to certain unavoidable truths

The same characteristics which allow major losses also manifests itself in other areas such as productivity, quality, etc....





S-H-E-Q Management System



Recognize SHEQ
Loss Exposures

Evaluate
The Risks

Exercise Control

Terminate
(Avoid)

Treat
(Alleviate)

Tolerate
(Accept)

Transfer
(Assign)



COSTS OF LOSS ICEBERG



Injury and Illness Costs

- Medical
- Lost Time
- Compensation

Property, Process, Material, and Miscellaneous Costs (6-53 times as much)

- Production Losses
- Building Damage
- Plant Damage
- Tool and Equipment Damage
- Material Damage
- Legal Fees
- Emergency Supplies
- Clerical Costs
- Investigation Costs
- Replacement Costs



LOSS VS. SALES VOLUME

Sales Required to Cover Losses

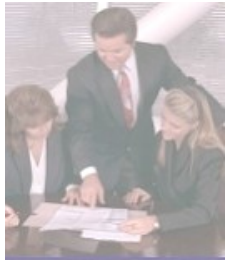
	1%	2%	4%	5%
10,000	1,000,000	500,000	250,000	
50,000	5,000,000	2,500,000	1,250,000	
100,000	10,000,000	5,500,000	2,500,000	
200,000	20,000,000	10,000,000	5,000,000	
500,000	50,000,000	25,000,000	12,000,000	
1,000,000	100,000,000	50,000,000	25,000,000	
	1%	2%	4%	5%
Profit Margin				

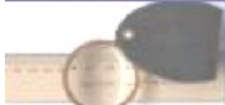


Our experience with International Customers have pointed to certain unavoidable truths

When Professional management skills are applied systematically to the control of losses, the desired results **WILL BE ACHIEVED.**

Effective loss control management improves the general management system overall, and spills over into other areas of the organization





Any Questions

